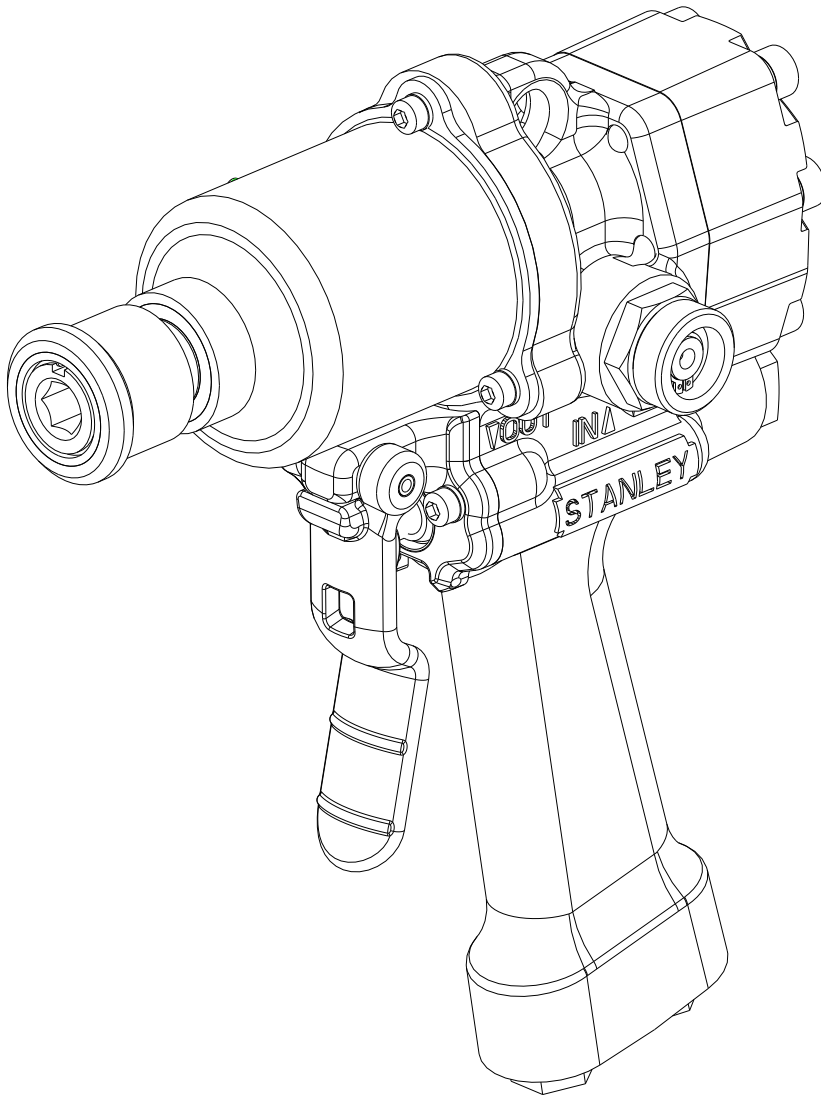




# Service Manual

# IDO7

## Impact Drill/ Wrench



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USA & CE Version  
60788 7/2003 Ver. 1

### **! DANGER**

**SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.**

**REPAIRS AND/OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.**

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# IDO7

## Impact Drill/ Wrench

### SERVICING THE IDO7 IMPACT DRILL/WRENCH:

This manual contains Safety, Operation, and Troubleshooting information. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the DANGER warning on the cover and the SAFETY warning below.

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## **SAFETY FIRST**

***It is the responsibility of the operator and service technician to read rules and instructions for safe and proper operation and maintenance.***

***A cautious worker using common sense is the greatest safety device.***

# Certificate of Conformity

**CERTIFICATE OF CONFORMITY**  
**ÜBEREINSTIMMUNGS-ZERTIFIKAT**  
**CERTIFICAT DE CONFORMITE CEE**  
**CERTIFICADO DE CONFORMIDAD**  
**CERTIFICATO DI CONFORMITA**



**Hydraulic Tools**

I, the undersigned:  
Ich, der Unterzeichnende:  
Je soussigné:  
El abajo firmante:  
Io sottoscritto:

**Burrows, James**

Surname and First names/Familiennamen und Vornamen/Nom et prénoms/Nombre y apellido/Cognome e nome

**hereby certify that the construction plant or equipment specified hereunder:**  
**bestätigt hiermit, daß die Konstruktion und Ausrüstung wie folgt spezifiziert ist:**  
**atteste que le brise-béton:**  
**por el presente certifico que la fabrica o el equipo especificado a continuacion:**  
**certifico che l'impianto o l'attrezzatura sotto specificata:**

1. Category: Impact Drills  
Kategorie:  
Catégorie:  
Categoria:  
Categoria:
2. Make/Ausführung/Marque/Marca/Fabbricazione: **Stanley**
3. Type/Typ/Type/Tipo/Tipo: ID0781001, ID0782001

4. Type serial number of equipment:  
Typ und Serien - Nr. der Ausrüstung:  
Numéro dans la série du type de matériel:  
Numero de serie tipo del equipo:  
Matricola dell'attrezzatura:

**ALL**

5. Year of manufacture/Baujahr/année de fabrication/Año de fabricacion/Anno di fabbricazione: 2003

**has been manufactured in conformity with - EEC Type examination as shown.**  
**wurde hergestellt in Übereinstimmung mit - EEC Typ-Prüfung nach.**  
**est fabriqué conformément - au(x) type(s) examiné(s) comme indiqué dans le tableau di-après.**  
**ha sido fabricado de acuerdo con - tipo examen EEC como dice.**  
**è stata costruita in conformità con - le norme CEE come illustrato.**

Directive Richtlinie Directives particulières Directriz Direttiva	No. Nr Numéro No n.	Date Datum Date Fecha Data	Approved body Prüfung durch Organisme agréé Aprobado Collaudato	Date of expiry Ablauf datum Date d'expiration Fecha de caducidad Data di scadenza
EN	792-6	1994	Self	NA
EN ISO	3744	1995	Self	NA
EN	28662-7	1997	Self	NA

6. Special Provisions: **None**  
Spezielle Bestimmungen:  
Dispositions particulières:  
Provisiones especiales:  
Misure special:

Sound Level: 108 dBA  
Vibration Level: 2.0 m/s<sup>2</sup>

Done at/Ort/Fait à/Dado en/Fatto a **Stanley Hydraulic Tools, Milwaukie, Oregon USA** Date/Datum/le/Fecha/Data 6/16/03

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Puesto/Posizione **Engineering Manager**

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# Specifications

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Drive Size \_\_\_\_\_ 1/2 in. square or 7/16 in. hex  
Pressure Range \_\_\_\_\_ 2000 psi / 140 bar  
Flow Range \_\_\_\_\_ 4-12 gpm / 15-45 lpm  
Optimum Flow \_\_\_\_\_ 4-9 gpm / 15-34 lpm  
Porting \_\_\_\_\_ -8 SAE O-ring  
Connect Size & Type \_\_\_\_\_ 3/8 in. NPT Pipe Fitting  
Weight (less couplers) \_\_\_\_\_ 7.2 lbs. / 3.3 kg  
Overall Length \_\_\_\_\_ 9 in. / 22.9 cm  
Width \_\_\_\_\_ 4.5 in. / 11.4 cm  
Height \_\_\_\_\_ 10.5 in. / 26.7 cm

Motor \_\_\_\_\_ Integral  
Output Torque \_\_\_\_\_ 500 ft lbs / 675 Nm  
Max. Fluid Temp. \_\_\_\_\_ 140° F / 60° C  
HTMA Class I \_\_\_\_\_ 4-6 gpm @ 2000 psi



EHTMA Category \_\_\_\_\_ 20 lpm @ 138 bar

HTMA Class II \_\_\_\_\_ 7-9 gpm @ 2000 psi



EHTMA Category \_\_\_\_\_ 30 lpm @ 138 bar

Sound Power Level \_\_\_\_\_ 104.5 dBA  
Vibration Level \_\_\_\_\_ 6.4 m / s<sup>2</sup>

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# General Safety Instructions

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Always observe safety symbols. They are included for your safety and the protection of the tool.

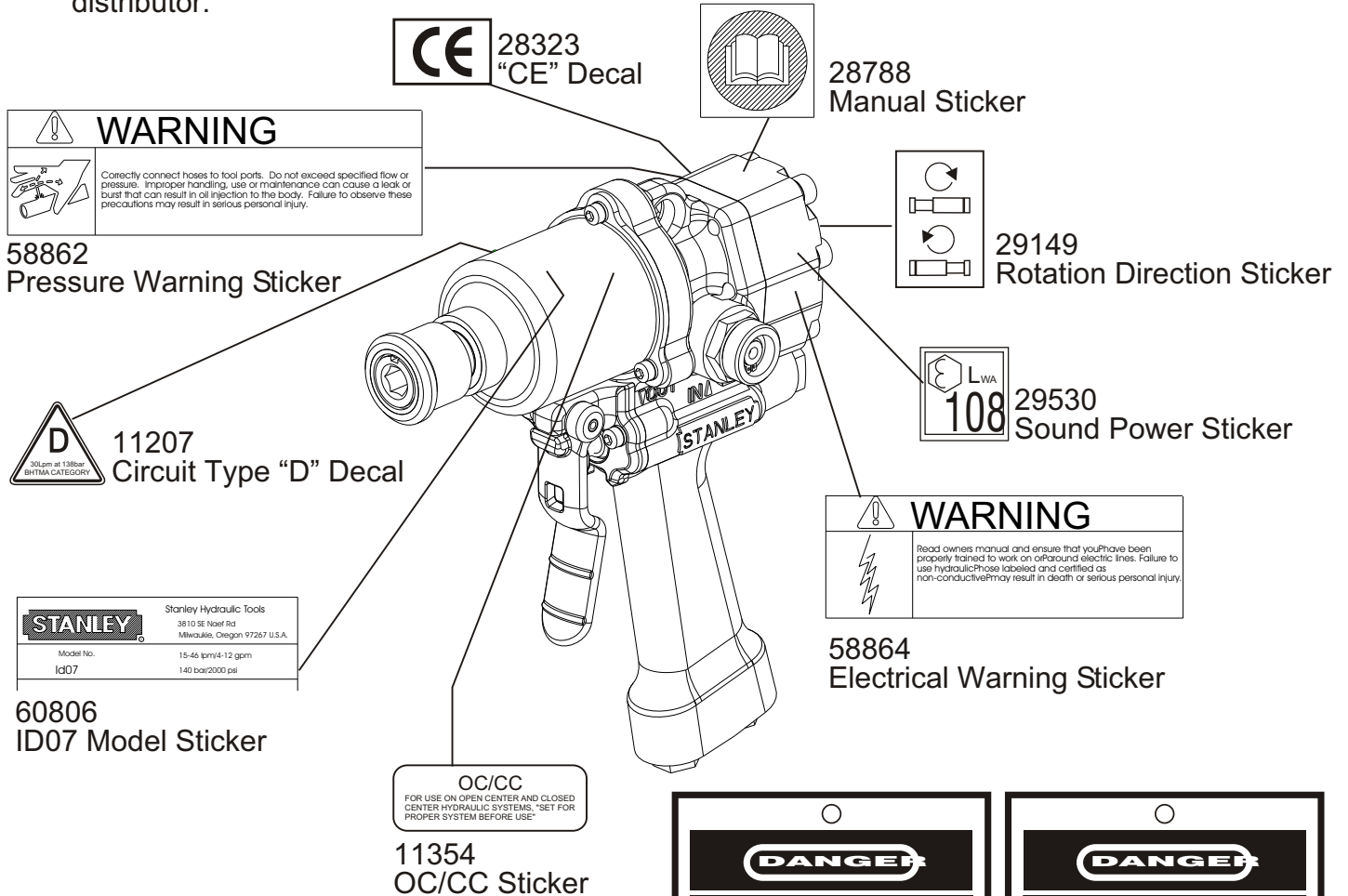


This tool will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operations.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, head protection, and safety shoes at all times when operating the tool.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Do not operate this tool without first reading the Operating Instructions.
- Do not install or remove this tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Never operate the tool if you cannot be sure that underground utilities are not present. Underground electrical utilities present an electrocution hazard. Underground gas utilities present an explosion hazard. Other underground utilities may present other hazards.
- Do not operate in a potentially explosive atmosphere.
- Do not wear loose fitting clothing when operating the tool. Loose fitting clothing can get entangled with the tool and cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Failure to do so may result in damage to the quick couplers and cause overheating. Use only lint-free cloths.
- Do not operate the tool at oil temperatures above 140° F/60° C. Operation at higher oil temperatures can cause operator discomfort and may cause damage to the tool.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.

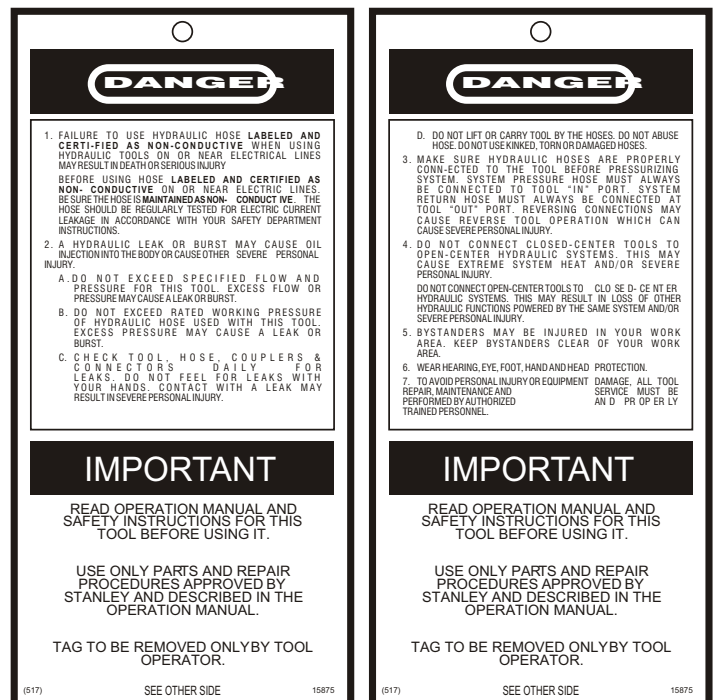
# Tool Decals & Tags

A Name Tag Sticker is attached to the tool. Never exceed the flow and pressure levels specified on this sticker. The information listed on the name tag sticker must be legible at all times. Replace this sticker if it becomes worn or damaged. A replacement is available from your local Stanley distributor.



\* Not all stickers are furnished on all tool models. Consult parts list and model number for details.

The SAFETY TAG, P/N 15875, shown at right, smaller than actual size, is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.



# Hydraulic Hose Requirements

## HOSE TYPES

Hydraulic hose types authorized for use with Stanley Hydraulic Tools are as follows:

- ① Certified non-conductive
- ② Wire-braided (conductive)
- ③ Fabric-braided (not certified or labeled non-conductive)

Hose ① listed above is the only hose authorized for use near electrical conductors.

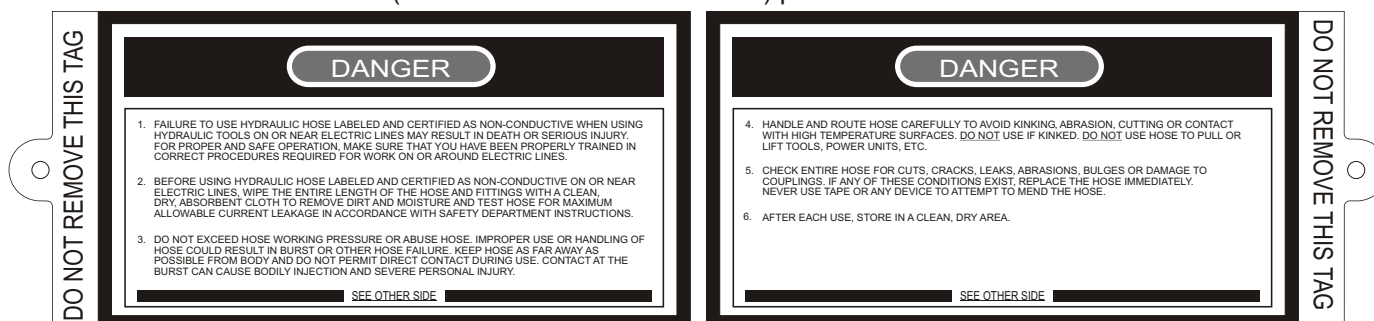
Hoses ② and ③ listed above are **conductive** and **must never** be near electrical conductors.

## HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hoses purchased from Stanley Hydraulic Tools. **DO NOT REMOVE THESE TAGS.**

If the information in a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained at no charge from your Stanley Distributor.

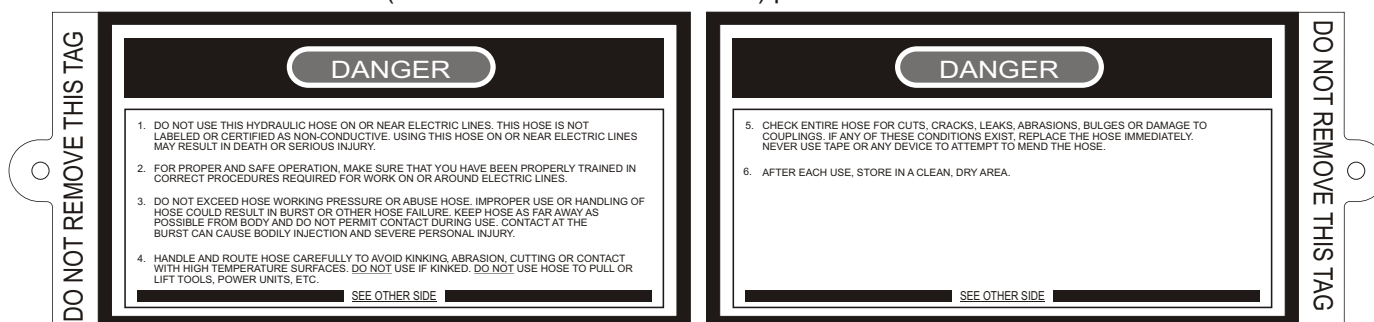
This Tag attached to “Certified Non-Conductive” hose.  
(shown smaller than actual size) p/n 27987



Side 1

Side 2

This Tag attached to “Conductive” hose.  
(shown smaller than actual size) p/n 29144






Side 1

Side 2

## HOSE PRESSURE RATING

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system.

# HTMA Requirements

Hydraulic System Requirements	Tool Category			
	 Type I	 Type II	 Type III	Type III
Flow rate	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	10.5-11.6 gpm (36-44 lpm)	11-13 gpm (42-49 lpm)
Tool Operating Pressure (at the power supply outlet)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
System relief valve setting (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)
Maximum back pressure (at tool end of the return hose)	200 psi (14 bar)	200 psi (14 bar)	200 psi (14 bar)	200 psi (14 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
Temperature				
Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	6 hp (4.47 kW) 40° F (22° C)	7 hp (5.22 kW) 40° F (22° C)
NOTE: Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
Filter				
Min. full-flow filtration	25 microns	25 microns	25 microns	25 microns
Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	18 gpm (68 lpm)	30 gpm (114 lpm)	35 gpm (132 lpm)	40 gpm (151 lpm)
Hydraulic fluid				
Petroleum based (premium grade, anti-wear, non-conductive)				
Viscosity (at min. and max. operating temps)	100-400 ssu* (20-82 centistokes)	100-400 ssu* (20-82 centistokes)	100-400 ssu* (20-82 centistokes)	100-400 ssu* (20-82 centistokes)
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				
*SSU = Saybolt Seconds Universal				

NOTE: These are general hydraulic system requirements. See tool Specification page for tool specific requirements.



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# Operating Instructions

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**IMPORTANT:** In addition to the **GENERAL SAFETY INSTRUCTIONS** on pg 5 of this manual, observe the following for equipment protection and care.

- Do not exceed 12 gpm/ 45 lpm flow rate. Rapid failure of impact mechanism can result.
- Make sure the circuit **PRESSURE** hose (with male quick disconnect) is connected to the port furthest from the trigger. The circuit **RETURN** hose (with female quick disconnect) is connected to the port closest to the trigger.
- Do not reverse circuit flow. The reversing spool that is part of the tool provides for reverse operation of the wrench. Operation with circuit flow reversed will cause poor or no performance and may cause rapid failure of the motor shaft seal. **ALWAYS USE THE REVERSING SPOOL BUILT INTO THE WRENCH FOR REVERSE OPERATION.**

## Pre-Operation Procedures

### Preparation for Initial Use

See model **DESCRIPTION** on the parts list page to determine what type of connections are furnished with your tool. Additional fittings or hoses may be required in addition to quick disconnect couplings. Make sure the direction of the oil flow is as recommended by the quick disconnect manufacturer.

Inspection of the tool to assure it did not sustain any damage during shipping should be performed prior to usage.

### Use as a Drill

The ID07 applies a high number of impact blows to turn a drill bit or socket and adapter. This makes the ID07 an excellent tool for drilling into various hardwoods or softwoods using auger bits up to 18 inches in length and 1 - 1/16 inch in diameter.

Because of the impact turning, the ID07 cannot be used for drilling steel or masonry.

### Use as an Impact Wrench

The ID07 can be used with all 1/2 in. square impact

sockets from 1/2 in. to 1 in. hex. The ID07 provides output torque up to 500 ft lbs/ 675 Nm. See the information below on **WRENCH TORQUE**.

## Wrench Torque Information

### Factors that Affect Torque

An impact wrench is a rotary hammer that impacts the head of a bolt or nut. It does not apply a slow steady torque as do standard torque wrenches. Therefore several factors can affect resultant torque when using impact wrenches.

1. **Long bolts.** Long bolts, having high-friction threads with lubrication under the bolt head or associated nut, can twist when impacted, then untwist before the next impact, especially if there is low friction between the bolt head or nut and the mating surface.
2. **Heavy, loose or multiple adapters.** Heavy, loose or multiple adapters between the wrench and socket can dissipate the intensity of the impact to the bolt head or nut.
3. **Amount of impact.** Maximum resultant torque can be obtained by allowing continuous impacting of the socket against the bolt head or nut for at least 10 seconds.
4. **Hydraulic flow rate.** If the flow rate to the tool is too low, hammer (or impact) speed is reduced. If the flow is correct, a change in the relief pressure does not affect the impact force. Poorly designed hydraulic circuits can result in lower flow rates and reduced impact speeds.

## Bolt Grade and Thread Recommendations

Allowable bolt torque is limited by both thread diameter and grade of steel in the bolt. The ID07 Impact Wrench is recommended for use on the following bolt grade and thread sizes:

SAE Grade 2 7/16 - 7/8 in./ 11 - 22 mm  
SAE Grade 5 3/8 - 5/8 in./ 9 - 16 mm  
SAE Grade 8 3/8 - 9/16 in./ 9 - 4 mm

## Check Hydraulic Power Source

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source

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# Operating Instructions

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develops a flow of 4-12 gpm/ 15-45 lpm at 2000 psi/ 140 bar.

2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100 psi/ 145 bar maximum.

## Connect Hoses

1. Wipe all hoses with a clean lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the hose couplers on the tool. It is a good practice to connect the return hose first and disconnect it last to minimize or avoid trapped pressure within the tool.
3. Observe flow indicators stamped on hose couplers to be sure that oil will flow in the proper direction. The female coupler is the inlet coupler.

NOTE: The pressure in uncoupled hoses left in the sun may result in making them difficult to connect. When possible, connect the free ends of the operating hoses together.

## Wrench Operation

Use a larger capacity impact wrench model for jobs requiring continuous application of greater than 500 ft lb/ 675 Nm of torque on successive fasteners or requiring impact times to constantly exceed 10 seconds.

1. Observe all safety precautions.
2. Move the hydraulic circuit control valve to the **ON** position to operate the wrench.

### **WARNING**

***Always use sockets and accessories designed for impact type applications. DO NOT USE STANDARD SOCKETS OR ACCESSORIES. THESE CAN CRACK OR FRACTURE DURING OPERATION.***

3. Select the direction of impact desired using the reversing spool located on the side of the wrench. From the operator's view point, to tighten fasteners, push the right hand end of the valve **IN**. To loosen fasteners, push the left hand

end of the valve **IN**.

NOTE: To more accurately tighten bolts, lubricate threads and check with a torque wrench. Duplicate time of impacting for other bolts of the same length and thread size.

4. Squeeze the trigger to activate the wrench.
5. Release the trigger to stop the wrench.

## Cold Weather Operation

1. Before using the tool in cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended oils, oil temperature should be at or above 50° F/10° C (400 ssu/82 centistokes) before use.
2. Damage to the hydraulic system or tool can result from use with oil that is too viscous or thick.

## Daily Maintenance Checks

To ensure safe operation, the following items must be checked each day at the start of the work shift and at the end of the work shift.

1. Check all fasteners for tightness.
2. Check the tool for oil leaks. If leaks are observed, do not use the tool. Have the tool serviced before use.
3. Check the tool for proper operation and performance. If the tool appears to not be operating properly, do not use the tool. Have the tool serviced before use.

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# Operating Instructions

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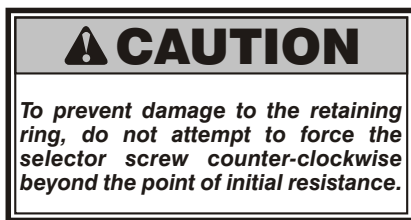
## Open Center/ Closed Center Setup (OC/CC)

This tool can be configured to run on both open center and closed center systems. Set for proper system before use.

1. Determine system type.
2. Remove hex plug (44) from spring cap using a 3/16 in. Hex.

**Closed Center**      Using a 3/16 in. Hex, reach through the hole in the spring cap and turn the selector screw fully clockwise. When the selector screw bottoms, closed center operation is selected.

**Open Center**      Using a 3/16 in. Hex, reach through the hole in the spring cap and turn the selector screw counter-clockwise until meeting resistance (from the retaining ring). Turn the selector clockwise and then counter-clockwise to be sure the selector is being stopped by the retaining ring. Do not force the selector screw. Open center Operation is now selected.



3. Reinstall hex plug. Failure to install plug may introduce contaminants to the spool bore resulting in replacement of the valve spool and main Housing.

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# Service Instructions

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**Note:** For orientation of parts in the following procedures, refer to the parts drawing later in this manual.

## Prior to Disassembly

1. Clean the exterior of the tool and place on a clean work surface.
2. Obtain the seal kit listed on the PARTS LIST so all seals exposed during disassembly can be replaced.

## Prior to Reassembly

1. Clean all parts with a degreasing solution.
2. Blow dry all parts or use lint-free cloths.
3. Ensure that all seals exposed during disassembly are replaced with new parts.
4. Apply clean grease or o-ring lubricant to all parts during assembly.

## Impact Mechanism Disassembly

1. Clamp the impact drill/wrench in a vice with soft jaws, impact mechanism facing up.
2. Unscrew and remove the fasteners (8), lockwashers (22) and lift the hammer case (61) off of the main housing (80). If the tool contains a trigger guard (43), unscrew and remove the fastener (23), nut (20) and remove the trigger guard before lifting off the hammer case.
3. If the hammer frame (53) and hammers (54) remain on the main housing, lift them off. If the hammer frame and hammers remain in the hammer case, remove them by turning the anvil until they drop out. On models containing the 1/2 inch drive anvil, the hammer frame, hammers, and anvil can be removed from the hammer case by simply pushing on the anvil (55).
4. Push the hammer pins (52) out of the hammer frame and then remove the two hammers.

5. To remove a 7/16 inch anvil from the hammer case, complete the following steps.

- a. Using two small screw drivers, push the thrust ring (57) down and pry out the thrust ring lock (58). Lift off the thrust ring, spring (56), and retaining sleeve (59) being careful to not allow the steel balls (27) to fall out.
- b. Remove the steel balls.
- c. Push the anvil out of the hammer case.

## Impact Mechanism Reassembly

1. Thoroughly clean and inspect all parts of the impact mechanism. If the hammer case, hammers, pins, or anvil appears damaged in any way, the part(s) should be replaced.
2. Apply grease and install a new o-ring (10) onto the pilot ring (62). For underwater models, apply grease and install a new o-ring (1) into the groove in the bushing (60).
3. Apply impact tool lubricant to the anvil and install it into the hammer case. If the anvil is a 7/16 inch quick change, complete the following steps.
  - a. Apply grease to the holes in the anvil for the steel balls (27) and then install each ball.
  - b. Place the retaining sleeve (59) over the anvil followed by the spring (56) and thrust ring (57).
  - c. Push down on the thrust ring and then install the thrust ring lock (58).
4. Apply impact tool grease to the hammers, hammer frame, and pins.

**NOTE:** Do not fill the hammer case with grease or heavily coat the mechanism parts with grease. A coating is all that is required.

5. Install the hammers into the hammer frame and then install each pin.

**NOTE:** Make sure the hammers are oriented as

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# Service Instructions

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shown in the parts illustration (one hammer appears to be upside down against the other). The order (front to back) does not matter as long as one is upside down against the other.

6. Install the hammer frame and hammers assembly into the hammer case. Turning of the anvil will help seat the frame and hammers.

7. Making sure the spacer (47) and bearing (32 & 33) are in place, install the completed mechanism assembly to the main housing and secure with the capscrews (8) and lock washers (22). Tighten to 48 in. lb./5.4 Nm. If a trigger guard is used, install it at this time.

## Tool Disassembly

1. Complete steps 1, 2 and 3 under IMPACT MECHANISM REMOVAL.

2. Remove the spacer (47) and thrust bearing (32 & 33) from the main housing assembly.

## Motor Cap

3. Remove the 6 socket head capscrews (29) and lockwashers (4) securing the motor cap assembly (36) to the main housing assembly and lift off the motor cap assembly. Do not in any way excessively force the motor cap assembly off of the main housing assembly.

4. Remove the o-ring (11) from the motor cap.

## Main Shaft & Idler Shaft

5. Tap on the splined end of the main shaft (37) and push the shaft from the main body.

6. Remove the idler gear (35), idler shaft (48), spring (50), and plunger (49).

7. Remove the retaining ring (16) and then pick out the seal washer (34), o-ring (5) and back-up ring (26) from the main housing.

## Valve Spool

8. Unscrew the spring cap (73), pick out the spring

(83) and then push the valve spool (65) out of the spring cap end of the main housing. Remove the o-ring (19) from the main housing and the o-ring (18) from the valve spool.

## Trigger

9. Remove the trigger (81) by first unscrewing the capscrews (8) and lockwashers (22) and removing the trigger and trigger mount (82) as an assembly. Drive out the roll pin (21).

## Reversing Spool

10. Remove retaining rings (74) and remove the end caps (72).

11. Unscrew and remove the seal caps (71) and slide the reversing spool (75) out of the main housing.

**NOTE:** Make sure the idler shaft has been removed prior to completing this step.

## Cleaning and Inspection

### Cleaning

Clean all parts with a degreasing solution. Blow dry with compressed air or use lint-free cloths.

### Gear Chamber (Motor Cap)

The chamber bores and bottoms around the shaft bushings should be polished and not rough or grooved. If the bushing bores are yellow-bronze, replace them and investigate the cause of wear.

The flat surfaces around the chamber and bolt holes should be flat and free of nicks or burrs that could cause misalignment or leaks.

### Bushings

The inside of the bushings should be gray with some bronze showing through. If significant yellow-bronze

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# Service Instructions

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shows, replace the bushings. Inspect the motor shaft and idler shaft for corresponding wear and replace as required.

## Gears

The drive and idler gears should have straight tips without nicks; square tooth ends and a smooth even polish on the teeth and end faces. Replace the gear if cracks are present.

## Main Housing Assembly

The surface near the gears should show two interconnecting polished circles without a step.

## Shafts

The shaft diameter at the bearing and seal locations must be smooth. Grooves, roughness or a reduced diameter indicate fluid contamination or damaged bushings. Grit particles may have been imbedded in the bushings, grinding into the hardened shaft. If abnormal shaft wear as above occurs (more than normal polishing), replace both the shaft and associated bushings.

Also check the hydraulic system for excess contamination in the fluid and for filter condition. Operating conditions may require changing from a 25-micron filter to an oversized 10-micron filter.

## Tool Reassembly

1. Lubricate and install a new o-ring (5) and back-up ring (26) into the main housing. Install the seal back-up washer (34) and retaining ring (16).

2. Slide the reversing spool into the main housing assembly. Insert the spool with the slot toward the idler shaft hole and the narrow side of the depression in the spool facing up toward the top of the main housing.

3. Insert the idler shaft (48) with spring (50) and plunger (49) to prevent the reversing spool from turning.

4. Lubricate and install new wiper seals (70), o-rings (12), back-up rings (17), and o-rings (3) into each seal cap (71). Install each seal cap onto the main housing assembly.

5. Install each end cap (72) and secure with retaining ring (74).

6. Lubricate the seal area of the main shaft (37) and install it into the main housing. Install the idler gear (35) onto the idler shaft.

7. Lubricate and install a new o-ring (11) onto the motor cap (36). Lubricate the bolt (29) threads with an antiseize compound and install the motor cap with lockwasher (4). Tighten the bolts to 15-17 ft. lb./20-23 Nm in a cross pattern.



8. Lubricate and install a new seal wiper (67) into the trigger mount (82). Secure trigger (81) to trigger mount with roll pin (21). Install the trigger assembly to the main housing with bolts (8) and lockwashers (22).

9. Install a new o-ring (19) in main housing and new o-ring (18) on valve spool. Lubricate the valve spool bore and seals with grease before installing the valve spool (65) into the main housing from the spring cap end. Do not install the valve spool from the trigger side of the main housing as this will result in spool seal damage. Ensure that the tab on the valve spool nose is aligned with the slot in the trigger. Install spring (83) behind the valve spool. Using Loctite™ 242, install spring cap (73) to main housing.

10. Lubricate with grease and install the bearing races (32) and thrust bearing (33). Install the spacer (47) with the smaller stepped diameter facing the main housing.

11. Install the impact mechanism. Tighten bolts (8) with lockwashers (22) to 48 in. lb./5.4 Nm. If a trigger guard (43) is used, install it at this time with bolt (23) and nut (20).



# Troubleshooting

This section describes how to find and resolve problems users may experience. If a situation occurs that is not covered, call your Stanley Customer Service representative for assistance.

## WARNING

*Inspecting the tool or installing parts with the hydraulic hoses connected can result in severe personal injury or equipment damage.*

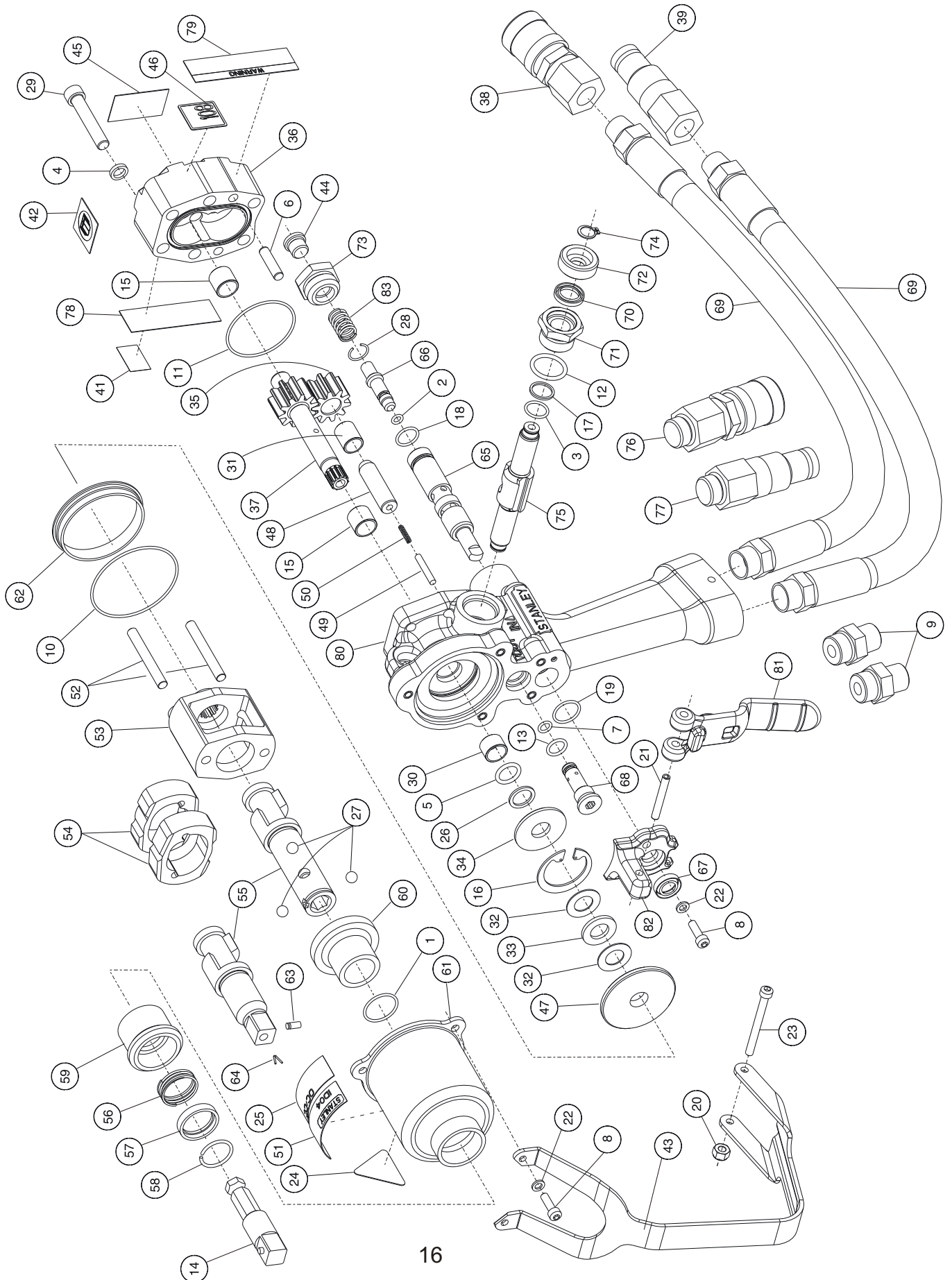
*To prevent accidental startup, disconnect the hydraulic power before beginning any inspection or installation task.*

If symptoms of poor performance develop, the following chart can be used as a guide to correct the problem.

When diagnosing faults in operation of the tool, always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the tool as listed in the table. Use a flowmeter known to be accurate. Check the flow with the hydraulic oil temperature at least 80° F/27° C.

Symptom	Possible Cause	Solution
Low performance or impact.	Hydraulic power source not functioning.	Check the power source for proper flow and pressure (4-12 gpm/ 15-45 lpm, 2000 psi/ 140 bar.)
	Couplers or hoses blocked.	Locate and remove restriction.
	Hydraulic motor failure.	Inspect and repair.
	Hydraulic lines not connected.	Connect lines.
	Hammer pins broken.	Replace hammer pins.
	Long bolt.	Lubricate threads.
	Sockets or adapters too heavy or loose.	Use the correct impact type sockets or adapters.
	Dry Mechanism	Re-grease
Tool runs too fast.	Incorrect hydraulic flow.	Check that hydraulic power source is producing 4-12 gpm/ 15-45 lpm at 2000 psi/ 140 bar.
Fluid leak at motor cap face.	Fasteners loose.	Tighten to recommended torque.
	Face o-ring worn or damaged.	Replace as required.
Performance low and seems to get worse rapidly.	Bearing failure.	Replace as required.
	Trigger spool worn.	Replace as required.
	Impact mechanism worn.	Repair or replace.
Fluid gets hot, power unit working hard.	Circuit relief set too low.	Adjust relief valve to 2200 psi/ 155 bar minimum.
	Too much fluid going through tool.	Adjust flow for 4-12 gpm/ 15-45 lpm maximum.
	Circuit has contaminants that have caused wear and high heat generation.	Replace worn pump and valves: install a large clean filter and keep circuit fluid clean.

# ID07 Parts Illustration





# ID07 Parts List

Item	Part	Qty.	Description	Notes
1	00012	1	O-ring 13/16 X 15/16 X 1/16 -019	ID07920 Only
2	00026	1	O-ring 3/16 X 5/16 X 1/16 -008	
3	00175	2	O-ring 1/2 X 5/8 X 1/16 -014	
4	00231	6	Lockwasher 5/16" I.D	
5	00354	1	O-ring 1/2 X 11/16 X 3/32 -112	
6	00713	2	Dowel Pin 1/4 X 1	
7	00717	1	O-ring 1/4 X 3/8 X 1/16 -010	
8	00803	5	HSHCS 10-24 X 5/8	
9	00936	2	Adapter -8 (1/2) SAE X 3/8 Npt	ID07810, ID07820 Only
10	01205	1	O-ring 2-1/4 X 2-3/8 X 1/16 -035	
11	01262	1	O-ring 1-3/4 X 1-7/8 X 1/16 -031	
12	01604	2	O-ring .755 X .949 X .097 -910	
13	03364	1	O-ring .441 X .558 X .072 -905	
14	05117	1	Adapter 7/16" Hex X 1/2" Sq	ID07810, ID0781001, ID07810S Only
15	05207	2	Bushing	
16	06635	1	Retaining Ring	
17	07224	2	Backup Ring -014	
18	07626	1	O-ring 1/2 X 5/8 X 1/16 -014	
19	07627	1	O-ring 5/8 X 3/4 X 1/16 -016	
20	07724	1	Nylock Nut 10-24unc	ID0781001, ID07810S, ID0782001 Only
21	07970	1	Roll Pin 3/16 O.d. X 1.375 LG.	
22	09623	5	Lockwasher #10	
23	09687	1	HSHCS 10-24 X 2.000	ID0781001, ID07810S, ID0782001 Only
24	11207	1	Circuit Type "D" Sticker	ID0781001, ID0782001 Only
25	11354	1	OC/CC Sticker	
26	13995	1	Backup Ring -112	
27	15966	3	Retainer Ball	ID07810, ID0781001, ID07810S Only
28	16070	1	Retaining Ring	
29	18206	6	Hshcs 5/16-18 X 1-3/4	
30	20758	1	Bushing	
31	20760	1	Bushing	
32	20761	2	Bearing Race	
33	20762	1	Bearing	
34	20767	1	Seal Back-up Washer	
35	20769	1	Idler Gear Assy	Includes #31
36	20770	1	Motor Cap Assy	Includes #6, 15
37	20788	1	Main Shaft	
38	24058	1	3/8 Flushface Coupler Body 3/8npt	Part Of Set 24069, ID07810S Only
39	24059	1	3/8 Flushface Coupler Nose 3/8npt	Part Of Set 24069, ID07810S Only
40	25610	1	Railroad Help Desk Sticker	Model ID07810S Only
41	28323	1	Sticker "CE" 12mm	ID0781001, ID0782001 Only
42	28788	1	Sticker - Manual	
43	60710	1	Trigger Guard	ID0781001, ID07810S, ID0782001 Only
44	350041	1	Hollow Hex Plug -4 SAE	
45	29149	1	Rotation Direction Sticker	ID0781001, ID0782001 Only
46	29530	1	Sound Power Level Sticker - 108	ID0781001, ID0782001 Only
47	30704	1	Spacer	
48	31246	1	Idler Shaft	
49	31299	1	Plunger	
50	31665	1	Coil Spring	
51	31743	1	ID07 Model Number Sticker	
52	31895	2	Hammer Pin	
53	31896	1	Hammer Frame	
54	31897	2	Hammer	
55	31898	1	Anvil 7/16" QC	ID07810, ID0781001, ID07810S Only
	32150	1	Anvil 1/2" Sq	Incl. #63, 64, ID07820, ID0782001, ID07920 Only
56	31899	1	Retainer Spring	ID07810, ID0781001 ID07810S Only
57	31900	1	Thrust Ring	ID07810, ID0781001 ID07810S Only
58	31901	1	Thrust Ring Lock	ID07810, ID0781001 ID07810S Only
59	31902	1	Retaining Sleeve	ID07810, ID0781001 ID07810S Only
60	31903	1	Hammer Case Bushing	ID07810, ID0781001, ID07810S, ID07820, ID0782001 Only
	32153	1	Hammer Case Bushing UW	ID07920 Only
61	31904	1	Hammer Case	
62	32029	1	Pilot Ring	

# ID07 Parts List

Item	Part	Qty.	Description	Notes
63	32151	1	Retainer	ID07820, ID0782001, ID07920
64	32152	1	Spring	ID07820, ID0782001, ID07920
65	48987	1	Valve Spool	
66	48989	1	Selector Screw	
67	49139	1	Seal Wiper	
68	56721	1	Relief Cartridge Assy	Includes #7, 13
69	56725	2	Hose Assy 471st-05-01-08-06-08-18	ID07810S Only
70	56747	2	Seal Wiper	
71	56749	2	Seal Cap	
72	56757	2	End Cap	
73	56758	1	Spring Cap	
74	56764	2	Retaining Ring External	
75	56765	1	Reversing Spool	
76	58856	1	3/8 Flushface Cpler Body -8 (1/2) Male SAE	Part Of Set 58718, ID0781001, 82001, 7920 Only
77	58857	1	3/8 Flushface Cpler Nose -8 (1/2) Male SAE	Part Of Set 58718, ID0781001, 82001, 7920 Only
78	58862	1	Warning Sticker - Pressure	ID07810, ID07810S, ID07820, ID07920
79	58864	1	Warning Sticker - Electrical	ID07810, ID07810S, ID07820, ID07920
80	59049	1	Main Housing Assy	Includes #15, 30
81	60677	1	Trigger Casting	
82	60678	1	Trigger Mount Casting	
83	60679	1	Spring	

Seal Kit P/N 60791			
1	00012	O-ring, 13/16 x 15/16 x 1/16 -019	1
2	00026	O-ring, 3/16 x 5/16 x 1/16 -008	1
3	00175	O-ring, 1/2 x 5/8 x 1/16 -014	2
5	00654	O-ring, 1/2 x 11/16 x 3/32 -112	1
7	00717	O-ring, 1/4 x 3/8 x 1/16 -010	1
10	01205	O-ring, 2-1/4 x 2-3/8 x 1/16 -035	1
11	01262	O-ring, 1-3/4 x 1-7/8 x 1/16 -031	1
12	01604	O-ring, .755 x .949 x .097 -910	2
13	03364	O-ring, .441 x .558 x .072 -905	1
17	07224	Backup ring, -014	2
18	07626	O-ring, 1/2 x 5/8 x 1/16 -014	1
19	07627	O-ring, 5/8 x 3/4 x 1/16 -016	1
26	13995	Backup ring, -112	1
67	49139	Seal Wiper	1
70	56747	Seal Wiper	2

NOTE:  
Use Part Number and  
Description when ordering.

# Accessories

NOTE:  
Use Part Number  
and Description when  
ordering.

Part	Description
05079 05117 07192 05080	7/16 in. Quick Change Chuck to 1/2 in. Square Female Adapter, 7/16 in. Hex Shank to 1/2 in Square Male 5/8 in. Quick Change Adapter to 1/2 in. Square Female Adapter, 5/8 in. Male Hex x 1/2 in. Male Square Drive
	Wood Auger Bits, 5/8 in. Hex
27845 27847	9/16 in. dia x 18 in. Carbide Tipped Auger Bit (22 in. oal) 13/16 in. dia x 18 in. Carbide Tipped Auger Bit (22 in. oal)
	Wood Auger Bits, 7/16 in. Hex
27850 27851 27852 27853 27854 27855 27856 27857 27858 27859 27860 27861 27862 27863 27864 32399 32400	9/16 in. dia. x 8 in. Carbide Tipped Auger Bit (12 in. oal) 11/16 in. dia. x 8 in. Carbide Tipped Auger Bit (12 in. oal) 13/16 in. dia. x 8 in. Carbide Tipped Auger Bit (12 in. oal) 15/16 in. dia. x 8 in. Carbide Tipped Auger Bit (12 in. oal) 1-1/16 in. dia. x 8 in. Carbide Tipped Auger Bit (12 in. oal) 9/16 in. dia. x 12 in. Carbide Tipped Auger Bit (16 in. oal) 11/16 in. dia. x 12 in. Carbide Tipped Auger Bit (16 in. oal) 13/16 in. dia. x 12 in. Carbide Tipped Auger Bit (16 in. oal) 15/16 in. dia. x 12 in. Carbide Tipped Auger Bit (16 in. oal) 1-1/16 in. dia. x 12 in. Carbide Tipped Auger Bit (16 in. oal) 9/16 in. dia. x 18 in. Carbide Tipped Auger Bit (22 in. oal) 11/16 in. dia. x 18 in. Carbide Tipped Auger Bit (22 in. oal) 13/16 in. dia. x 18 in. Carbide Tipped Auger Bit (22 in. oal) 15/16 in. dia. x 18 in. Carbide Tipped Auger Bit (22 in. oal) 1-1/16 in. dia. x 18 in. Carbide Tipped Auger Bit (22 in. oal) 11/16 in. dia x 15 in. Carbide Tipped Auger Bit (18 in. oal) 13/16 in. dia x 15 in. Carbide Tipped Auger Bit (18 in. oal)
	Sockets, 1/2 Square Drive
05108 05109 05110 05111 05112 05113 05114 05115 05116 21755  33155 33156	1/2 in., Double Square 8-Point, Deep Length 9/16 in., Double Square 8-Point, Deep Length 5/8 in., Double Square 8-Point, Deep Length 11/16 in., Double Square 8-Point, Deep Length 3/4 in., Double Square 8-Point, Deep Length 13/16 in., Double Square 8-Point, Deep Length 7/8 in., Double Square 8-Point, Deep Length 15/16 in., Double Square 8-Point, Deep Length 1 in., Double Square 8-Point, Deep Length Socket Set, Double Square 8-Point, Deep Length, 1/2 Square Drive, 1/2 to 1-1/16 in. Sizes Lineman's Socket, 13/16 in. and 15/16 in. Lineman's Socket, 1 in. and 1-1/8 in.

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# Warranty

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Stanley Hydraulic Tools (hereinafter called "Stanley"), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley's factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

## EXCEPTIONS FROM WARRANTY

**NEW PARTS:** New parts which are obtained individually are warranted, subject to the exceptions herein, to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage. Seals and diaphragms are warranted to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage or 2 years after the date of delivery, whichever period expires first. Warranty for new parts is limited to replacement of defective parts only. Labor is not covered.

**FREIGHT COSTS:** Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

**SEALS & DIAPHRAGMS:** Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

**CUTTING ACCESSORIES:** Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

**ITEMS PRODUCED BY OTHER MANUFACTURERS:** Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

- a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

**ALTERATIONS & MODIFICATIONS:** Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

**NORMAL WEAR:** Any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

**INCIDENTAL/CONSEQUENTIAL DAMAGES:** To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

**FREIGHT DAMAGE:** Damage caused by improper storage or freight handling.

**LOSS TIME:** Loss of operating time to the user while the tool(s) is out of service.

**IMPROPER OPERATION:** Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

**MAINTENANCE:** Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

**HYDRAULIC PRESSURE & FLOW, HEAT, TYPE OF FLUID:** Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

**REPAIRS OR ALTERATIONS:** Any failure or performance deficiency attributable to repairs by anyone which in Stanley's sole judgement caused or contributed to the failure or deficiency.

**MIS-APPLICATION:** Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a manner which exposes them to abuse or accident, without first obtaining the written consent of Stanley. **PERMISSION TO APPLY ANY PRODUCT FOR WHICH IT WAS NOT ORIGINALLY INTENDED CAN ONLY BE OBTAINED FROM STANLEY ENGINEERING.**

**WARRANTY REGISTRATION:** STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS "DOCUMENTATION".

## NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.



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